

II. SPECIFICATION AMENDMENTS:

Please replace the paragraph on page 1, lines 6-8, as rewritten below:

This invention relates to a dual motor system for driving a photoreceptor belt with a balanced torque to improve image registration in an electrophographic electrophotographic imaging system.

Please replace the paragraph on page 4, lines 3-22, as rewritten below:

The drive system of this invention consists of a pair of brushless motors, a first motor provides a main drive torque and a second motor provides a supplemental drive torque. The second drive motor distributes the applied torque according to a predetermined function of the main drive. A constant torque split is maintained between the drive motors by holding the ratio of the torque applied by each motor constant. By varying the voltage applied to the motors according to the speed of the photoreceptor belt, the torque applied by each motor can be continuously balanced at a predetermined ratio to apply a constant cumulative torque and the desired speed may be accurately maintained. In order to further optimize motion quality and performance of the system, an additional predetermined amount of voltage is applied to the assist motor referred to as ~~offset.~~offset. The offset magnitude is ramped as the motor accelerates and reaches its full magnitude when the system achieves its desired steady state speed. Ramping the offset value allows the system to avoid oscillations and instability that could otherwise occur at start up.

Please replace the paragraph on page 8, lines 11-22, as rewritten below:

Drive motors 103 and 104 can be brushless motors selected to provide the required torque to the rollers 107 and 108 respectively at available voltage levels. Control processor 111 adjusts the input voltage 114 (see ~~figure 4~~figure 4a) to main drive motor 103 in response to actual speed signals from encoder 106. The belt 102 is driven by the combined torque of motors 103 and 104, the applied torque is split between motors 103 and 104 at a predetermined function. The voltage 114 is therefore adjusted to obtain and maintain a torque contribution from motors 103 and 104 which will result in a predetermined operating speed for photoreceptor belt 102.

Please replace the paragraph on page 9, lines 18-30, as rewritten below:

Assist motor 104 is driven by voltage 115 which is a function of the voltage applied to the main drive motor 103. This function consists of a ratio or percentage of the main drive motor voltage plus an offset 113. The ratio remains fixed to maintain a constant torque to the belt rollers 107 and 108. The offset 113 is ramped in the same manor that the motor is ramped during acceleration. As shown in ~~figure 4~~figure 4b, the offset 113 reaches its full magnitude when the belt encoder 106 indicates the operational belt speed. This optimizes motion quality and belt performance as the main drive motor 103 starts and reaches its destination operating speed. The assist drive signal to motor 104 therefore is governed by the relation $V_{15} = V_{14} * K + b$, where K is the assist ratio and b is the offset value.

In the Drawing, please replace figure 1, with the revised figure 1 attached hereto.